AMENDMENTS TO THE CLAIMS

Please cancel Claims 1-18 without prejudice.

Please add new Claims 19-25 as follows:

19. (New) A method of identifying a mutation in a nucleotide sequence, the method comprising:

providing a plurality of aminated polystyrene microwells;

partitioning the plurality of aminated polystyrene microwells into a control group and at least one test group;

covalently immobilizing probes comprising a 5' phosphate group and a nucleotide sequence to the aminated polystyrene microwells by the 5' phosphate group, wherein probes encoding a nucleotide sequence complementary to a first sequence are immobilized in microwells of the control group and probes encoding a nucleotide sequence complementary to a second sequence are immobilized in microwells of the at least one test group;

providing a sample nucleotide for testing to the plurality of aminated microwells, wherein the sample nucleotide is biotinylated;

hybridizing the sample nucleotide to the plurality of microwells with the immobilized probes under hybridization conditions;

detecting the degree of the hybridization in the microwells of the control group and the microwells of the at least one test group;

comparing the degree of hybridization in the microwells of the control group to the degree of hybridization in the at least one test group; and

determining whether the sample nucleotide hybridizes to the first sequence or the second sequence based on the degree of the hybridization in the microwells.

20. (New) The method of Claim 19, wherein the probes comprise more than 10 nucleotides.

21. (New) The method of Claim 19, wherein the hybridization conditions comprise an aqueous solution of 20xSSPE, 0.0167% TRITON X-100, and 10 mg/ml salmon sperm DNA.

22. (New) The method of Claim 19, detecting the degree of the hybridization comprises:

adding a streptavidin-linked degradation enzyme to the microwells, whereby the degradation enzyme is bound to the biotin moiety of the sample nucleotide hybridized to the probes; and

adding to the microwells a compound degradable by the degradation enzyme; and

determining the extent of compound degradation.

23. (New) The method of Claim 22, wherein the degradation enzyme is alkaline phosphatase.

24. (New) The method of Claim 23, wherein the compound degradable by the degradation enzyme is pNPP (p-nitrophenyl phosphate).

25. (New) The method of Claim 22, wherein determining the extent of compound degradation is accomplished by determining the optical density of the microwell after the compound degradable by the degradation enzyme is provided to the degradation enzyme.